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ABSTRACT

This paper examines the goals, architecture, and means of lifelong learning. The following are among the topics discussed: economic and social dimensions of the forces pushing Europe toward a learning society (investing in people; promoting employment in an era of structural change; making firms key partners in the learning society; overcoming the fragmentation of life into education, work, and retirement; forging new routes to equal opportunities; diversifying education and training opportunities in Europe); clarification of goals and purposes (reconciling cultural, social, and economic goals; building on past achievements; devising a new "systemic" logic); movement toward a flexible architecture of institutions and opportunities (a learner-centered, consumer-led process of change; learning outcomes as a rallying point; redistribution of life chances); strategic changes in institutional frameworks (schools as foundations for lifelong learning up to age 16; initial vocational training and new pathways from school to work; development and renewal of the adult population's human capital through continuing education; creation of a frontier-knowledge and advanced-skills base through higher education and research); and new ways and means for lifelong learning (new methodologies and networks, more flexible systems of qualifications). (MN)

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European Year of Lifelong Learning 1996

The Goals, Architecture and Means of Lifelong Learning

J.R. Gass

Background paper
issued by the
European Commission

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FOREWORD

Education is the subject of wide-ranging debate in Europe today. It seems as if ever-greater demands are being placed on the education and training systems in terms of both the numbers of people they are expected to cater for and the social and economic objectives which they are expected to fulfil. It is easy to overlook the enormous progress which has already been made in our lifetime, to forget that there are many people alive in Europe today who grew up in a society where anything more than a basic primary education was a privilege reserved for a small minority.

In the last fifty years there has been a vast expansion of secondary education, and it is no longer considered acceptable that anyone should be denied a University education because of their social background. But this greatly increased access to education has led to a certain frustration at the fact that education cannot deliver all that is expected of it - particularly as regards employment prospects. The explosion of knowledge unleashed by the utilisation of the intellectual resources that would hitherto have lain dormant, and the resulting acceleration of the rate at which knowledge becomes obsolete, means that we have to run faster just to keep abreast of developments. There is no longer any agreed, static curriculum which will equip one for life. Even less is there any vocational qualification which will guarantee a livelihood for a full working career. "Human capital" needs to be constantly replenished to maintain its relative value. The idea of lifelong learning - an idea at least as old as Socrates - has thus ceased to be the idyllic aspiration of a select few, and has instead become a necessity for all.

The European Year of lifelong learning sprang from a suggestion put forward in the Commission's White Paper *Growth, Competitiveness, Employment*. But that does not mean that educational values are subordinated to considerations of industrial competitiveness, notwithstanding the damage to social cohesion caused by unemployment, especially youth and long-term. The European Parliament and the Council, in approving the Commision's proposal, endorsed the view that lifelong learning is as much a matter of personal fulfilment and being enabled to participate in the exercise of the rights of citizenship as as it is a matter of attaining economic objectives.

The European Year has set out to promote lifelong learning in two ways. In the first place, a wide range of events are being organised to popularise the concept and to motivate individuals to participate by making them aware of the opportunities open to them. In the second place, an institutional debate is being stimulated in order to help identify how each participating country's education and training system can develop these opportunities and make lifelong learning more of a reality.

In November 1995, on the eve of the European Year and as a contribution to the institutional debate, the Commission published a White Paper entitled *Teaching and Learning - towards the Learning Society*. In it we put forward some specific objectives and concrete measures to achieve them. On 6 May 1966, the Council noted progress in its discussion of the White Paper, and indicated that that discussion will continue

through the second half of 1996 and into 1997. The policy guidelines and proposals for action set out in it were taken into account in the discussions on an integrated strategy for growth and employment, on which the European Council in Florence put forward a number of proposals.

In parallel to the formal discussion initiated by the White Paper, the Commission wished to put forward some material for wider public debate in the context of the European Year. It has already had a survey conducted to establish attitudes to education, training and lifelong learning among the general public. It has also had studies carried out on the budgetary aspects of investment in education and training and on the analysis of the economic returns on this investment. Finally, it has commissioned this *Background Paper* as an independent contribution situating the education debate in a longer-term context. The views set out do not seek to bind the Member States or the Commission. They do not seek to present a Commission perspective on particular topics such as accreditation of skills, transnational mobility, the promotion of partnerships with the private sector, the role of local authorities, the social dialogue, combating social exclusion or language learning. They are rather a free contribution intended to stimulate discussion, and whether readers agree with them or take issue with one or other point, as long as this paper provokes reactions it will have served its purpose.

Edith **CRESSON**
Member of the European Commission

INTRODUCTION

As Europe begins to turn the final pages of the 20th century, education and training has a strategic but paradoxical role in both carrying forward the lessons of the past and tracing out the path towards the future. For the individual, education and training is both know-why and know-how. It is the instrument for integrating individuals into society and the economy, but also the nursery of the democratic freedoms by whose exercise the individual citizen can influence the shape of things to come.

At the end of the 19th century, as industrialised society turned towards mass production, education and training shaped young people into the workers, clerks and technical professions needed for a hierarchical industrial organisation which was the mirror-image of a hierarchical society. The social structure was in turn moulded by the structure of life-time jobs for which people were prepared by the educational system. Now, at the end of the 20th century, the pervasive influence of technology has brought about a need for more flexible and complex job profiles which will evolve over the individual's life-cycle. Initial education and training no longer points the way towards a lifetime occupation. The destinies of individuals are to be forged in new ways.

That is why education and training now has to be regarded as a single process, notwithstanding the often separate institutional arrangements for education and training in national systems, so as to provide individuals with a lifetime set of opportunities that takes account of flexibility and change.

Lifelong learning is not necessarily the emergence of a new "system". It is rather an approach, which focuses on the individual's learning opportunities and process, while recognising that these opportunities and processes are catered for by many institutions in society, including not only the formal education and training systems, but also the family, the firm and the communication media.

The European Year of Lifelong Learning is a contribution by the European Union to mobilising all the forces which can contribute to providing the citizens of Union with the education and training that will help them to find their place in the new world that is unfolding and to forge their individual destinies over the whole course of their lives. In doing this, it will take into account the recent developments in knowledge and in access to knowledge which have been accelerated by the emergence of the Information Society.

The purpose of this Background Paper is to frame questions for debate, not to provide ready-made answers. The answers will come from the participants in the Year itself. But to make sense of the debate there is one question which must be clarified at the beginning.

It is possible to take the view that lifelong learning is a revolution that can only take place by going beyond the existing formal educational structures, and to some extent the vocational training structures that have

burgeoned in recent decades. In this view all have the potential to learn, but this potential will only be released if all institutions, and notably enterprises, become learning institutions. This implies that lifelong learning will demand a radical approach leading to the creation of a learning system in parallel with existing education and training systems.

Whilst recognising the need to spread learning in all institutions, the other approach takes the view that the foundations of lifelong learning have be to laid in the schools and universities. This approach is sometimes represented by the notion of "learning to learn". But more is involved because schools and universities have to develop a dialogue with the institutions which need competencies, aptitudes and skills if they are to serve the needs of those who attend them. The logic of education, which is to develop the talents of all individuals, and the logic of industry, which is to make the best use of human resources, are finding common ground in new ways and require new partnerships.

This document takes the second approach, while recognizing the value of the first approach as a critique of what exists at the present time. It is structured in the following way:

- Part I describes the forces that are pushing Europe towards the learning society; and
- Part II attempts to define the goals, institutional architecture and means needed for lifelong learning.

I. TOWARDS A LEARNING SOCIETY IN EUROPE

During the last fifty years, the nations of Europe have achieved a massive expansion of secondary education, extensive opportunities for school leavers to undertake initial vocational training, a considerable expansion and diversification of higher education and growing opportunities for adult workers at all levels of skill and qualification to renew their human capital in order to meet the new needs brought about by technological change and economic competition.

These developments on the supply side of education and training are matched by the demands of the economy and of individuals for higher levels of educational attainment and professional qualifications, coupled with the necessity for society, firms and individuals to invest in the renewal of human capital over the life cycle of individuals.

The socioeconomic changes which create the demand for lifelong learning opportunities, which is met through a wide range of education and training opportunities - public authorities, education and training institutions, employers and trade unions as well as by individuals - is thus an issue of common concern for the Member States. The pressures to develop policies to correspond to this challenge are not only demographic, economic and technological, but also cultural and human because the loss of skill and competence is one of the most painful risks that individuals face in modern society.

It is clear that this challenge cannot be met by rigid, formal education and training systems, functioning on the basis of separation between the generations and feeding into rigid systems of qualifications which exacerbate the problem of skill obsolescence for individuals.

Thus, it is not surprising that lifelong learning is featuring ever more prominently in the political debate about education and training in all industrialised, democratic societies. In Europe, it is central to the debate about a new model of development. The forces behind this change do not come from within the world of education and training itself, but rather spring from complex changes in society, changes which are partly economic, partly cultural, and partly demographic. In the European Union, the economic debate is to the fore, but this should not hide the reality that, for the wider Europe now emerging, the underlying goal is a peaceful Europe able to channel the energies of its peoples towards the values of peace, democracy, cooperation and shared prosperity.

All the issues referred to above have emerged, in one form or another, during the debate on the European Commission's White Paper *Growth, Competitiveness and Employment*. That Paper, together with a number of other related documents, spells out the medium-term options facing the Member States. The follow-up discussion has led the Commission to issue a further White Paper dealing more specifically with the education and training issues: *Teaching and Learning: towards the Learning Society*. In response to the

factors of upheaval in modern society, this latter document proposes a twofold approach, focusing on a broad knowledge base and developing individuals' capacity to participate in economic life. These generic approaches are crystallised around five objectives:

- encouraging the acquisition of new knowledge;
- bringing schools and business closer together
- combating social exclusion
- promoting proficiency in three Community languages
- treating capital investment and investment on an equal basis.

Lifelong learning runs as a unifying theme throughout the whole discussion, linking many of the responses which are identified in the different domains. So what are the economic, social and cultural forces behind this challenge of the learning society, with lifelong education and training as its main instrument?

A. *THE ECONOMIC DIMENSION*

Investing in people

Ever since the 1960s it has been recognised that Europe is too slow in converting its scientific and technological output into gains in competitiveness and productivity. This is due to a number of weak links in the chain between new knowledge and its use in industry and society, amongst which the shortage of qualified people and the inadequate renewal of skills are key factors. This is a particularly dangerous weakness in the current environment of ever more global competition, because the new technologies are pervasive, meaning that potential gains in productivity can only be realised through a renewal of technical, management and shop-floor skills.

Rectifying the situation calls for a qualitative process of economic growth in which economic, social and cultural policies are more interdependent and mutually supporting. The social policies of the classic welfare state were viewed as a means of correcting, after the event, the negative side-effects of economic development. This has proved not to be financially viable and the underlying philosophy has in consequence been called into question. Economic policies which treat the human factor as a residual lead to unacceptably high unemployment, waste of human capital, loss of equality and social disorder. Further, cultural factors themselves are becoming an asset helping knowledge-based societies to sustain a fast pace of change while minimising social disruption.

Thus, a new European model of development must take into account three broad developments, all of which call for investment in people:

- the evolution of production systems towards knowledge-based products and services, and away from classical mass-production based on low-skilled labour;

- the evolution of economies towards sustainable, non-inflationary growth involving the husbandry of both human and environmental resources; and

- the evolution of society towards an active role for all citizens, and away from the traditional compartmentalisation into education, working life and retirement.

Common to all these developments is the need for a more highly-educated population. The trend towards an international division of labour in which Europe is pushed towards high value-added products and services implies a fundamental transformation of the European labour force, not only in terms of initial qualifications, but also regarding the renewal of human capital over the life-cycle. In the medium term there is an opportunity to reap the rewards of a quality labour force, but in the short term a difficult transition has to be negotiated because the manufacturing skills and knowledge-base on which Europe has built its strength are becoming economically obsolete. Relatively low-skilled manufacturing labour with high wages, the consequence of large-scale factory mass-production, is now losing ground to highly-skilled, flexible labour in the production of high value-added products and services. The pressure to achieve this transformation rapidly is increased by the competition of low-wage economies, such as Eastern Europe, Asia and Latin America, and the incentives for transnational companies to move production facilities to exploit these shifts in comparative advantage.

High-quality, flexible and creative human capital is the obvious response to this situation for Europe, especially since human capital is more adaptable than physical capital and its obsolescence does not have the same irrevocable character. Investment in education and training could in consequence be of great importance in the European model of development. But how can it contribute to creating jobs and reducing unemployment?

Promoting employment in an era of structural change

Despite Europe's efforts over the last decade, it is clear that there is no single road back to full employment. Whilst higher levels of economic growth are indispensable if more jobs are to be created, the foreseeable rates of growth will not do the job. It is a harsh reality that Europe has been creating fewer jobs than Japan and the United States and probably has more "mismatch" unemployment, that it to say people without the skills and qualifications to match the available jobs. The new mix of policies needed to create more jobs and bring unemployment down certainly includes a major role for education and training in the following main directions:

1. Providing an adequate and flexible supply of skills so as to ease inflationary pressures in the labour market, thereby giving macro-economic policies more room for manoeuvre.

2. Supporting the job-creation process by developing the skills needed for newly-emerging industrial and service sectors in fields such as the environment, urban development, information and communications technology and biotechnology.

3. Facilitating smoother and more efficient industrial adaptation, notably by improving the quality of labour supply as suggested above, and by assisting the reconversion of labour to the new industrial activities.

Thefirm as key partner in the learning society

It is self-evident that firms must play a leading role in this drive towards a well qualified, adaptable, innovative workforce in Europe, and that they must in consequence play a full role in the development of lifelong learning. The pressures for continuing change are now so great that the competitive firm has to become a "learning organisation" - in the sense that its success in the market depends on its capacity to

continuously develop the talents and skills of its workforce. Thus, human resource strategies and training have become priority issues both for business and the trade unions.

It is therefore not surprising that, in the current debate about the "stakeholder" firm, which arises because many large companies have cut their workforces to boost competitiveness, the social role of the firm is once again being questioned by the public. The outcomes of this debate could entail some risks because, in the last analysis, high levels of employment in Europe depend more on enterprises than governments.

These developments pose the problem of whether a new approach to "labour market flexibility" is needed. The post-oil-shock period necessitated an adjustment of wages to absorb the loss of income, and Europe was slower than the Americans or the Japanese in making that adjustment. Labour-market flexibility became associated, especially in the minds of trade unions, with wage restraint and the emergence of jobs with less security and with poor working conditions.

Clearly, flexibility remains a key requirement for enterprises. But is the balance tipping towards the long-term flexibility of a qualified and motivated labour force and away from short-term quantitative adjustments of employment to fluctuations in output? Recent studies of the strategies of large European companies do indeed point to the rapid development of new forms of flexibility in terms of working time, work organisation and employment contracts.

Given the high rate of job destruction/job creation which is unavoidable in advanced economies (about 10% per annum according to OECD estimates), these changes will come more quickly than past expectations would have led one to believe. Already, public policies are lagging behind innovations in industry and trends in collective bargaining. In the context of the emergence of a learning society, two new questions arise:

1. Given the scale of the skill changes needed, especially at the higher levels, is much closer cooperation between enterprises and the education and training systems the only way forward? An affirmative answer would mean that the present separation between education and training in many European countries would have to be questioned.

2. Are we on the verge of new relationships between education, work and leisure which will make it possible for more complex patterns of time use to emerge, including life-time patterns, creating new options for the individual and for society?

B. THE SOCIAL DIMENSION

Overcoming the fragmentation of life into education, work and retirement

Historically, productivity gains due to new techniques and more efficient organization of production have always resulted in reduced working time. The rising age of school-leaving, the shortening of the working week, longer holidays and the lowering of the retirement age have all been part of the process whereby labour demand and supply are adjusted and living and working patterns changed.

The issue today, with structural waste of human resources embedded in European societies through high and long-term unemployment, is what form the adjustment of working time should take. The developments in firms referred to above suggest the possibility that the next steps might be more freedom

for individuals to adjust their own working time, education time and leisure time over the life cycle. Many reforms or experiments in that direction are already under way: flexible forms of post-compulsory and adult education, flexible retirement schemes, part-time work, the annualization of working hours, sabbatical leave and secondment.

The fundamental question is whether, given the interest of firms in seeking new forms of flexibility, and the search of individuals and families for a better quality of life through the more flexible use of time, a more efficient and socially acceptable process for adjusting labour supply and demand could not be found. Opportunities for lifelong education and training could play an important role in such a development by easing the transitions between or parallel participation in the different phases.

More flexible and creative life-cycle patterns would mean focusing policy interventions and collective bargaining outcomes on the strategic points in life-cycle development such as :

- capitalised education and training rights for young people to enable them to negotiate the transition into working life and careers, and thus ease the pressure to stay in initial education and training as the only possible strategy for optimising life chances;

- fiscal incentives both for individuals and enterprises to renew human capital;

- facilitating radical mid-career changes, possibly by drawing rights for education linked to flexible retirement provision;

- family policies and working-time provisions which enable family members to make freer and more rational choices in order to reconcile working and family life;

- more flexible pension and education provisions so as foster active retirement patterns.

There are many other potential options based on the principle of moving policy away from the present lock-step provision towards the support of more flexible, dynamic and creative life patterns. Needless to say, such developments could provide special advantages for women.

New routes to equal opportunities

The more flexible and creative life-cycle patterns outlined above possibly constitute the next stage in the struggle for more equality of opportunity in Europe.

It has to be recognized that the traditional thrusts of European egalitarianism are running out of steam. Over the last fifty years, equality of opportunity in education and income redistribution through the tax/benefit system have been important pillars of European democracy. But both are now reaching their limits.

Education will continue to strive to better serve the ambition of giving all children an equal start in life, but it would be idle to ignore the reality that for many it still remains a major instrument of social selection linked to family, cultural background and social class. Those who fail in initial education find it increasingly difficult to find work, and become enmeshed in the trap of social exclusion.

Income redistribution, too, whilst an indispensable expression of social solidarity, is blocked by the dilemmas of the poverty and unemployment traps. Whilst changes in tax/benefit systems which improve incentives would no doubt improve the situation, they cannot deal with the essential problem which is to redistribute life chances.

The approach that might work is to provide the structures and incentives so that individuals can build up their human capital over a longer period of their lifetime, develop capitalisable drawing rights for education and training so as to reduce the power of initial social selection, formalise the role of working experience in the qualification process for career development, and change the goal of social programmes from income maintenance to social integration.

Diversifying education and training opportunities in Europe

Human factors suggest that lifelong education and training has to be based on a widespread distribution of resources and opportunities throughout the Member States, closely linked to regional and local realities, and close to the lives and careers of the individual citizens.

But there are also economic reasons which support this decentralised approach. The paradox of contemporary competitiveness is that the globalisation of markets calls for the mobilisation of regional and local capacities ("think global, act local"). This is to some extent because the new technologies facilitate a decentralised economy based on competition between regions and local enterprise networks rather than "national" economies. The new technologies, through "distance" learning and communication networks, also facilitate the decentralisation of training capacities. This is important because, as the Essen European Council emphasized, employment growth is now more dependent on new jobs coming from local economies and small and medium-sized enterprises.

From a cultural standpoint, Europe's diversity is a strength because, in a world typified by uncertainty and changes, the variety of solutions to the common problems increases the learning capacity of European society as a whole. This applies also to the innovations that are likely to arise as the cultural traditions of Central and Eastern Europe come to grips with the forced march to modernization.

Learning processes involve theory (conceptualisation) and practice (doing). This over-simple statement is intended to make the point that the notion of a "learning" society is essentially humanistic, since it postulates a society in which all individuals can exercise their innate, rational capacities to improve their place in society by bringing both their minds and their experience to bear upon their problems.

Europe today is no exception. All the forces of technology seem to push towards societies based on knowledge, skills and qualifications. Yet we are faced with the reality that we are being propelled towards a dual society by failure to give both youngsters and adults access to knowledge and skills and the motivation to avail themselves of that access. Both the youngsters who fail to get into the labour market, and the adults who fall out, spiral down towards social exclusion because their skills cannot command the market wage. The alternative is to succeed in developing the skills of people and combating their obsolescence. This is the essential goal of striving for a learning society.

II. THE GOALS, ARCHITECTURE AND MEANS OF LIFELONG LEARNING

As a result of the forces described in Part II, lifelong learning is becoming an increasingly important theme and one of the potential organizing principles of education and training in all advanced, industrialised democracies.

This is not a plea for a new "system", but rather for a better gearing of education and training to the needs of individuals as they evolve over their lifetime. In the last 50 years we have moved from a society in which individuals were slotted into the social structure on the basis of their initial education to one in which few can count on a life-path based on their initial skills and qualifications. More uncertainty but also more opportunities for all to learn and relearn - that is the basic challenge. To rise to it, European education and training needs to be clearer about its goals, more flexible in its institutional architecture, and more imaginative in its ways and means.

A. CLARIFYING GOALS AND PURPOSES

Reconciling cultural, social and economic goals

Until the oil-shock recession of the early 1970s, the dominant ideology, and to some extent the social consensus, was that all children should be given roughly the same basic education in a common school. The German "dual" model, in which a significant proportion of young people went into apprenticeships in industry, was somewhat in a minority position. The pedagogical ideal was the personal development of each child as the foundation stone of equal opportunities in democratic societies. This consensus was profoundly shaken by the rising youth unemployment of the 1980's, by the growing feeling that much education was irrelevant to the needs of the economy, and by the political challenges to egalitarianism. The dual model came back into prominence, because schools were to some extent blamed for the difficulties young people experienced in getting into the labour market.

Indeed, the common secondary school has now come under attack in some places, and the resulting placing of the school in the forefront of political agendas has resulted in waves of reform that produce confusion for children, teachers and parents. It is vital that these conflicting signals be re-focused by a new social consensus.

Fortunately, there are signs that a new consensus might be emerging. Industry now knows that continuing technological change and rapidly shifting comparative advantages in world trade mean that people must

change their skills, qualifications and competencies over the course of their working lives. So the purpose of the school is to provide the foundation of basic skills, numeric and linguistic competence, and social skills on which subsequent changes of occupation can be built. It is not to provide a finished product for industry.

Equally in higher education, where the pressure towards professional courses has been intense, there are signs that the traditional role of the universities to produce broadly- educated elites and a critical view of society, is coming back into focus. Rapidly- changing societies and economies need to incorporate new technologies very fast, and they can do so only if higher education produces not only the specialists but also the broadbased generalists needed to manage such complex systems.

Thus there is now a historic opportunity to bridge the gap between educators and entrepreneurs, and between general education and vocational training. In practical terms, whether this opportunity will be taken depends on whether Europe can adapt what has been achieved during the 20th century to the needs of the 21st. This can only be done by building on past achievements, not by tearing down existing structures.

Building on past achievements

So what are these achievements? Large numbers of children are involved in education before compulsory-school age. Primary and lower secondary education is now more or less universal in the European countries, a great achievement of the past 50 years. But what is more surprising is that after the compulsory school-leaving age (usually about 16), 80-90 per cent of young people are in education and training. In other words, youngsters stay in school or vocational training to have a better chance of a good job or go on to higher education. In most European Union countries, about 25 per cent go to higher (university level) education, compared with 50 per cent in Japan or Australia. Significant numbers, depending on the country, go into non-university tertiary education, because of the growing needs for technicians.

But beyond all this expansion of formal education, there has also been an explosion of vocational training for adults and young people because of difficulties of getting into and staying in the job market. In fact, vocational education and training now extends deeply into enterprises because productivity depends on creative and adaptable human resources. Indeed, legislated training rights for adults now exist in some countries.

Such a massive expansion toward vocational training has inevitably resulted in major systemic problems. In the public debate, dissatisfaction has been expressed through the idea that quantitative growth has not been matched by qualitative development, as expressed in the Maastricht Treaty. But behind this lies the reality that a massive expansion of education could not of itself cope with the wider problems of society.

A new "systemic" logic

Whereas "human capital" was in the past transmitted from one generation to the next in term of knowledge, skills and know-how, today it has to a considerable extent to be reconstructed over the lifetime of the individual. The Japanese have an advantage because their commitment to lifetime employment means that their enterprises have an economic reason for investing heavily in training, following widespread basic education. The Americans have historically developed a very flexible and widespread higher education and community college system which operates almost as a "supermarket" for education and training courses for

adults wishing to improve their skills. The Europeans are searching for a new synthesis between general and vocational education, which incorporates some elements of the German dual system, combined with a diversification of higher education and expansion of adult training.

There is a little possibility of planning or managing such complex systems from above in liberal, democratic societies with fast-moving economies. What is really needed is a coherent set of opportunities for individuals which is flexibly available at different points in the life cycle. Public policy needs to set a clear framework so that various actors - individuals, families, employers, trade unions and educational institutions - can play their role, and all bring their efforts and resources into the total picture. Indeed, this is the only way the overwhelming financial implications can be faced, because the public budget cannot meet the bill, having regard to the high percentage of public spending already committed to education and training.

Thus, the consensus that is progressively emerging on the importance of human resources now needs to be translated into a practical vision of how to achieve three broad objectives:

1. to capitalise on the achievements set out above, so as to create an environment in which people can go on learning throughout their lives;

2. to build around the central idea that education and training in the emerging European society are aimed at developing each individual's creativity and power of initiative;

3. to develop the framework of rights, incentives and responsibilities which will enable individuals to make their contribution to meeting the needs, through collective and personal efforts.

What is the architecture of institutions and opportunities that would enable Europe to go in these directions?

B. TOWARDS A FLEXIBLE ARCHITECTURE OF INSTITUTIONS AND OPPORTUNITIES

Traditional diagrammatic representations of education and training systems are constructed as institutional boxes, layered according to age-groups and streamed according to educational or vocational training orientation. Over the course of time, each part of the institutional structure, from school to university, from infant to adult, from general education to vocational training and finally to informal learning tends to develop its own goals, clientèles and vested interests. Even that latecomer to the European institutional edifice, the vocationally-oriented sector which has seen such formidable growth over the past 50 years as a means of out-flanking the rigidities of the traditional educational system, has tended to succumb to institutional sclerosis.

This is to some extent the nature of human affairs and the price to be paid for an organized set of arrangements, but if the lifelong learning of individuals as set out above is to become reality, new mechanisms that guarantee flexibility and relevance will have to be introduced.

A learner-centred, consumer-led process of change

One viable approach could be to accept that European values mean basing the system on the emerging needs of individuals, and to give power to individuals to build their quality of life rationally by developing their skills and seeking the rewards, whether in terms of income or personal satisfaction.

Does this mean turning education and training into a vast market, where institutions offer education and training products and individual consumers choose on the basis of price and quality? This cannot be looked upon as an empty question because some Member States of the European Union have already initiated reforms in that direction (for example see the Swedish Way towards a Learning Society, Ministry of Education and Science, 1992), and experiments with education and training vouchers are being undertaken or considered in several countries (e.g. the UK and France). But it has to be recognized that equality of opportunity will be retained by European democracies as a fundamental value, and that "market" experiments will probably be introduced cautiously for that reason. The most likely outcome will be that lifelong learning will be an important field for new forms of public-private cooperation, with the balance between public and private responsibility varying according to the different stages of the life-cycle. In certain parts of the system, for example adult vocational training, there is an inevitable trend towards organized training markets, to some extent on a European basis, with new financing arrangements that allow individuals to participate effectively and on a fair basis.

A learner-centred approach, based on the idea that the purpose of education and training is to provide individuals with the skills they need for functioning both as citizens and as workers, is to some extent complementary to the consumer-led approach, but it can also be pursued independently.

Learning outcomes as the rallying point?

Whatever the different opinions on market orientations, there does appear to be common ground in Europe on evaluating education and training on the basis of outcomes rather than resource inputs.

If the individual and her/his future development is taken as the raison d'être, it is surely acceptable that, in a broad sense, the purpose of education and training is to "qualify" people to rise to the challenges of life, both in terms of democratic citizenship and work. The problem is to humanise qualifications so that they help the individual to negotiate life opportunities not only in the labour market but also in society at large.

Therein lies the importance of current endeavours to define qualifications in terms of competencies which are visible, cumulable, transferable and flexible; and thus to see qualification systems as an aid to individuals both in their career development and participation in democratic social life.

Redistributing life chances

A better regional distribution of education opportunities throughout Europe would no doubt improve the life chances of many people. Yet it has to be admitted that, just as money makes more money, further education and training opportunities tend to benefit those who have already got off to a good start. Whilst education was a powerful force for social equality in the period when new social groups were being brought into secondary and higher education, now that a mass system exists in Europe, a process of dialysation, based on educational failure, is taking hold. This means that "recurrent" or "second chance" mechanisms have to be built into lifelong learning.

This was the principal aim of the OECD's "recurrent education" strategy in the 1980's (Recurrent Education - A strategy for lifelong learning, 1973). Noting that "something like 15-20 years of continuous presence in educational systems appears to be seen as the best way of developing the individual and of achieving social equality", the OECD proposed a different approach, namely that "education opportunities should be spread over the individual's lifetime, as an alternative to the ever-lengthening period of continuing education for youth".

Today the wheel may be turning again. The problem of youth unemployment has become so severe in Europe that, whilst no one is talking about extending the school-leaving age, there are massive attempts to rehabilitate those who lost out in basic education. The drive for more flexibility in the labour market is leading collective bargainers, with the support of governments, to create rights for adult training. The struggle of women for more equality in the labour market pushes in the same direction. The appearance of mid-career "obsolescence" is leading to radical proposals for second- chance education. The demand by retired people for a better quality of life has led to a growing sector of "third age" educational opportunities.

The issue of "recurrence" in education and training opportunities to redistribute life-chances appears to be back on the agenda.

C. STRATEGIC CHANGES IN THE INSTITUTIONAL FRAMEWORK

Despite the diversity of systems and traditions, the common challenges appear to be leading to a real convergence of objectives and policies in Europe:

- the key message coming from economic circles, employers as well as trade unions, is that all children need a high-quality basic education, including reading, writing and numerical competence, technology awareness and social and foreign language skills. This means that the education and business worlds are beginning to talk the same language;

- the youngsters emerging from such a foundation-laying basic education are simply not equipped to enter the labour market, and that is why there has been a massive growth of vocational training opportunities for the 16-19 age group in the Member States. The challenge is to develop a modern version of apprenticeship implying some convergence between the "dual" system and the universal secondary school, the two great European traditions;

- the universities and institutions of higher education have gone a long way to widening their goals to cater for economic as well as scientific and cultural needs. In the present era of rapid social and economic change, it is increasingly accepted that they need to sustain and re-assert their creative, critical role in society and in the economy.

The school as foundation for lifelong learning (basic schooling up to 16)

Without going too deeply into philosophies of education, it needs to be recognized that there is a conflict between the idea of the school as a preparation for society and the school as a haven for young people to develop intellectually and spiritually. Yet the terms of this debate are now changing because spokesmen for industry (such as those in the European Round Table) have moved away from the idea of the school as

a factory of vocational skills to that of the school as the foundation for lifelong learning. If in the modern economy each individual needs a lifelong capital of linguistic, numeric, technological and social skills in order to cope with uncertainty and changes in the system of production, then the implications for the school curriculum, and perhaps the way it is taught, are very fundamental.

A second element of the debate is forced upon us by the emergence of a new international order. Every child and young person is now face-to-face, because of mass communication and in particular television, with a diversity of cultures and life-styles. This can be a source of enrichment but also a source of confusion. In a sense, the school is both the bridge and the arbiter.

The third dimension is imposed by the speed of scientific and technological change, and its expansion beyond the physical world into life processes and into the functioning of society. Will the school curriculum be able to help youngsters to play their role as democratic citizens in this more complex relationship between science and practical living?

School is an arena where the tensions between social, vocational and personal goals have to be resolved in the curriculum; and also where teaching and therefore teachers have to translate these complex forces into a creative pattern of development for each child and young person. If the school is to rise to the challenges set out above, and become the foundation stone of lifelong learning, it has to evolve in a number of directions:

1. *Basic competencies and the core curriculum:*
   What sort of people are needed in this world into which we are moving, and therefore what knowledge, skills and attitudes/values do all children need to acquire? What is the "core curriculum" that can bring this about? All advanced, individualised societies, including in Europe, are now engaged in answering these questions. Since knowledge is exploding and the needs for citizenship and working life are changing, the answer has to some extent to involve "learning to learn". But then, how to get the right balance between linguistic, numeric, technological and social competence, and how can the humanities and the arts contribute to the total edifice?

2. *Problem-solving pedagogy:*
   "Learning to learn" obviously means giving preference to problem-solving over the accumulation of knowledge. This means that the problems in the environment (natural, civic and work) have to be brought into the school as a basis for learning. At the limit, it could mean that the school gets involved in problem-solving in the community. At the least it means fundamental changes in teaching methods.

3. *Individualisation:*
   The individual learner must become the focal point. But if so, what are the implications for classroom organisation and teaching resources? Whilst the child cannot be expected to become an autonomous learner, the ground has to be prepared for the day when the young person and adult have to marshall their own learning resources. The "learning to learn" process has to start in the school.

4. *Continuous assessment:*
   A logical consequence of the above developments will be for a continuous and flexible process of assessment of which the outcome will be a record of attainments rather than a succeed/fail examination. As such it should provide a continuing guide to pupils and parents, and a bridge to the first stage of education with a vocational dimension (the upper secondary school).

New pathways from school to work
(initial vocational training and education for the 16-19 age-group)

The high unemployment of the decade following the oil-shocks led all governments to develop measures to help young people to make the transition to working life. But these responses are rapidly becoming obsolete. There are two main reasons: first young people and their families have well understood that to get a decent job they need to extend their education and training; second, employers know that, if basic schooling is to concentrate on basic competencies, additional education and training is needed to integrate young people into working life. Post-compulsory education and training is therefore becoming generalised.

The consequence is that the basic architecture of the post-compulsory education and training systems has become not only a common concern of educators, industrialists, trade unionists, and of governments, the private sector and the general public, but also a field of active partnership. Obviously, it is here that the fundamental educational debate about comprehensive secondary schools or the more vocationally-oriented "dual" system is taking place. From the point of view of equality of opportunity, it is vital that this sector of education and training is flexibly organised so as to build bridges to higher and post-secondary education and to play a role in differentiated, flexible career patterns. This implies close co-operation with the business sector and flexible opportunities for individuals. It is particularly important with regard to opportunities for young people whose entry-jobs are low-skilled and with poor career prospects - a phenomenon which gives rise to fears about a "dual" society based on the "functional illiteracy" of a significant group of youngsters.

The current diversity and richness of the responses of EU Member States to this problem could be a great advantage because no system has the answer and the parameters are rapidly changing. The potential strength for Europe lies in the fact that the grave deficiencies revealed by the economic crisis of the 1970s led to some bold training experiments in many EEC countries.

The explosion of education and training opportunities for the 16-19 age group has already established a foundation for lifelong learning . But what are the main issues if it is to play its full role in the future architecture?

1. *Providing a fair set of opportunities for youth*: The upper secondary school in all its various forms is the "clearing house" of life cycle opportunities. Its main role in the social system is to provide the basis for access to working life or for further access to higher education. It is a sort of signal box which sets the points so that young people are directed towards different tracks which may never meet again. That, perhaps, explains the enormous attractive power of higher education, and some of the apparently irrational behaviour of young people in struggling for access to higher education rather than entering employment.

   But for others the main drive is to get into the labour market. The reality is that basic schooling no longer provides the minimum qualifications to enter the labour market, and in any case many of the entry-jobs for young people have been lost through structural changes in the economy. For all these reasons, the historical tracks leading from school to work are increasingly challenged. Young people need a period to navigate between school and work, during which they can not only acquire a qualification but also gain access to adult status. It is in that sense that some new form of "apprenticeship" is needed, involving alternation between work and school in one form or another, and an appropriate training income.

2. *Creating a diversified, open and coherent transition system for youth:*
Looking at what is happening in European countries one can discern three models of post-compulsory vocational education and training, all of which involve some form of partnership between enterprises and schools or vocational training institutions:

- those with mainly school-based training, but with components of training in enterprises;
- those with the "dual" system, in which a significant part of each generation goes into apprenticeships in enterprises; and
- those who are attempting to create a comprehensive vocational training system, with enterprises fully involved both in defining needs and in cooperating with schools in the provision of training.

In reality, the needs of the modern economy and the political priority given to solving the problem of the transition of youth into adult society is forcing all these models to combine, in one form or another, school-based and enterprise-based training. It is questionable whether this evolution will lead to one European model, but the three existing approaches are likely to converge to some extent because they have to solve three problems:

- diversification, so as to respond to the different needs and aspirations of young people;
- coherence, so that they can move from one part of the system to another; and
- openness, so that vocational and educative training is not a dead end without access to higher education and professionalisation.

Developing and renewing the human capital of the adult population (continuing education and training)

Europe has long-standing traditions of adult education and training. The workers' educational movement in the UK, the Nordic *folkeoplysning*, the continental popular universities and vocational training by chambers of commerce and trade unions - these and many other strands add up to the complex legacy of history with culture, occupational improvement and political emancipation as the driving forces. Over the years this has evolved into the policies of continuing education and training with legislative and collective bargaining roots, the diversification of post-secondary education to meet the needs of new clientèles for skills and qualifications, and the emergence of overall policies for vocational and professional training.

It is clear that, particularly since the oil shocks, the dominant driving force has been economic. This was very much reflected in the work of the European Community on vocational training, and the emphasis given to links between education and industry. But the concept of lifelong learning, in a society in which access to knowledge, skills and information is the key to social position and reward, offers the opportunity of a new synthesis between the old traditions and the modern needs. The issue is not only economic competitiveness, but also democratic participation and cultural creativity.

1. *Promoting a learning culture for adults:*
The task ahead is more akin to developing a new culture of adult learning than to setting up a new institutional framework. There are several key points to this new learning culture. The first is that

learning rather than teaching is the focus, with the individual learner as the point around which the process must be organised. The second is that the learner has to be motivated and informed if she or he is to be an efficient user of the available learning resources. Thirdly, and consequently, learning resources will have to be so organized that they are visible and accessible, and governed by rules which prospective participants find acceptable and can easily understand. Obviously new information and communication technologies will come into the equation in a powerful way.

2. *Fostering the emergence of training markets:*
A growing question is whether a true learning culture will only develop if individuals are empowered to participate in a vast training market offering a wide variety of choice and flexible enough to fit into the new time-use patterns of the post-industrial era. But it is already self-evident that there is a commercial sector for training in all Member States; that there is a need for guiding principles to bring service-providers and clients together in a more efficient way; that training products and training systems are now entering the international market; and that public policy, including regulation, is needed if efficiency and equity are to be reconciled. The most reasonable hypothesis seems to be that adult education and training will be one of the arenas where new concepts of public/private relationships will be needed, with the rights and responsibilities of citizens at the centre.

3. *Encouraging firms and organisations to invest in skills:*
There seems to be little chance of success unless firms, and indeed all organizations in which people are employed, recognize that the basis of success is the skill level, leadership and learning capacity of all those involved. This is what is meant by the slogan that enterprises have to become learning organisations. This is not easy to achieve in Europe because, unlike Japan, the capital and ownership structure and the prevalent culture render investments in training vulnerable to short-term adjustments in the market place. Added to this, SMEs, which are the predominant form of enterprise, are particularly vulnerable to short-term market fluctuations. Thus, in addition to there being a problem of managerial culture and leadership, there is also a problem of incentives, regulation and public support.

4. *Providing a high-quality and flexible supply of training:*
The quantitative and qualitative articulation of demand for skills and training by firms is not an easy matter. But it is the cornerstone of efficient training markets. When enterprises rely on an oversupply of qualified people from the education and training system for their recruitment strategies, the costs to individuals and society are high.

The providers of education and training have hence their own responsibilities for promoting better awareness of current and future needs. This better balance between supply and demand is in any case a moving target that can only be reached by well-organized and continuing interaction between business and the education and training systems. This explains why partnerships are proliferating and networks are the main instruments. Moreover, partnerships are most efficient when organized at the local, regional and sectoral level, not only because the real actors can be brought face-to-face but also because inter-firm mobility and human resource transfers from declining to expanding sectors can be achieved. The providers of education and training can only be responsive and flexible if the qualifications structure and the certification process are adapted to a cumulative rather than a once-for-all access to qualifications.

5. *Energising and helping the individual learner*

Even if individuals are propelled by a desire to understand and control their environment, they are also fragile when their vocational identity is threatened by technological and economic change. To some extent this means a radical transformation of the culture of the educational and enterprise systems, away from an "employee" to an "enterprising" set of values and skills. People need help to identify the education and training opportunities, incentives to make the effort, and rewards for success. Nothing could be worse than the pressure to train which leads nowhere in terms of employment, career development or personal enhancement. There is thus a need for the training community to rethink its responsibilities to individuals and for individuals to understand that their recognized competencies and skills are their most precious asset in negotiating with a rapidly changing economic system.

6. *Establishing learning environments and resource centres*

Do we need a pedagogical revolution to accomplish the switch to a world in which adults are engaged in a process of continuous learning? The received wisdom is that, whereas children and young people need the structured framework of the classroom, adults can learn alone and therefore benefit from the new information and communication technologies. "Distance" learning for adults and classroom teaching for young people seems to be the menu that is offered. But how do we square this with the reality that adults are crowding into the lecture halls of the universities of the "third age", and fairly young children are already learning on computers and drawing on textual and visual learning resources? Given the disappointment registered in recent decades with over-sold techniques such as programmed learning and computer-assisted education, it is perhaps necessary to be sceptical in the best sense of the word.

If man is fundamentally a learner it is because he can both conceptualise and learn from experience. The teacher, the tutor and the master have always been present because they represent the accumulated body of knowledge and provide the feed-back necessary to the pedagogical process. Such feed-back is inherent in the learning process, and this probably explains what we could call the "teaching paradox", the fact that teachers have survived the invasion of techniques to replace them. It is interesting to note for example that the tutor has survived in the UK Open University. Similarly, educational television is in search of an "interactive" process which can provide pedagogical feed-back.

The outcome of all this is that a whole range of learning environments, in which teachers are usually but not always present, can respond to the pedagogical imperatives. It is in the design of these learning environments that a real pedagogical revolution could take place. The dividing line is unlikely to be between children and adults, but between the different combinations of teachers and technological means according to what is to be learned and by whom. In all cases, the organization of and access to learning materials is vital, hence the notion of resource centres on which teachers and learners can draw. This is where new information and communication technologies also have a major role to play.

Creating a frontier-knowledge and advanced-skills base (higher education and research)

The role of the higher education system in a learning society is an exceedingly complex one. It is of course vital to the production of the high-qualified people the economy needs, and the basis of scientific and technical knowledge from which new products and processes are derived. But even if these functions have rapidly developed in recent decades, the very process of societal change is leading the institutions of higher education to re-assert their traditional cultural and scientific role. Indeed, as change speeds up society

needs the universities to exercise their "critical role", by developing the knowledge on which the public debate about directions and purposes can be founded.

In a broad sense the system of higher education, and the universities in particular, become one of the keys to mastering the process of change, because they educate those who are to provide leadership, they are the foundation of the new professions, they transmit the changing body of knowledge to the rising generation through the curriculum, and play an important role in developing knowledge and renewing higher skills on the basis of it.

This raises three major questions. The first and obvious one is: what should basic higher education be in such a learning society? Second, what is the special role of higher education in the overall institutional architecture of lifelong learning? And third, how can higher education produce and transmit the knowledge that the learning society needs?

1. *Modernising basic higher education*:
High unemployment has propelled students towards vocationally-oriented diplomas, with growing emphasis on the supply of well-defined qualifications that have been historically identified with the universities (doctors, architects, engineers, etc.). Today, however, in a rapidly changing economic environment, with services providing the margin of expansion, both universities and employers are beginning to re-emphasise the need for developing basic intellectual skills and aptitudes (such as rigour, precision, ambition and flexibility) which can be developed by a variety of disciplines.

Institutions of higher education cannot resist the need to respond to the growing deficits of highly qualified people in Europe, but they can probe the nature of future needs and demonstrate that the need for growing specialisation is not incompatible with a sound basic higher education. Indeed, the signs are of a shift from narrow specialisation to broadly-based qualifications, from mono-disciplines to bridge-building disciplines and from the once-fashionable denigration of the "soft" sciences to serious attempts to re-connect the two "cultures".

2. *Seeking a new balance between basic and continuing higher education*:
In addition to raising the above questions about the content of basic higher education, the rapid growth of continuing higher education is raising questions about the length of initial higher education and how the two should be articulated. The controversy hinges around whether continuing higher education should be viewed as an "add-on" to be financed by additional resources, or whether the entry of adults into higher education implies a fundamental re-examination of goals and structures. Setting aside the question of resources, there is the possible implication that the structure and content of initial degrees need to be reviewed, and possibly shortened. Some go further and suggest that the universities should review their programmes towards an integrated system of recurrent and continuing education in which the lines of demarcation between initial and continuing education would be weakened so as to allow movement from one to the other.

This controversy could perhaps be enlightened by stating the problem in terms of two possible options which imply a policy choice:

- a shorter, more general initial higher education, in which case continuing higher education has to provide specialisation and depth;

- a longer, more specialised and professional initial higher education, in which case continuing higher education has to provide more general and contextual subjects.

3. *Meeting the needs for continuing professional higher education*:
The most explosive force in the growth of continuing higher education has been the economic demand for renewing professional qualifications. A shift has therefore been taking place away from the traditional egalitarian and democratisation objectives of adult higher education towards meeting market demands. The point has now been reached where, according to the OECD, the two traditional missions of higher education - research and the initial higher education of young people - have been joined by a third: renewing the vocational skills of adults. As a result, higher education now finds itself participating in a competitive market with other commercial and professional providers.

There is no going back on this evolution, but it does give rise to a number of issues that have to be resolved if higher education is to find its proper place:

- how to respond to private-sector needs without undermining the basic functions of academic staff and research workers?

- given the diversity of demand, in what niches of the market does higher education have a comparative advantage?

- how to develop the commercial function in such a way as to strengthen and not undermine the public responsibilities and the resources available to fulfil them?

- how to negotiate through dialogue between those concerned (public authorities, business, professional associations, commercial providers) the special role of higher education and the ground rules for its operations in this sector?

4. *Clarifying the role of universities in the development, renewal and transfer of scientific knowledge*:
What characterises the contemporary scene is the accelerating rate at which new knowledge is being introduced into all functions of society. Whilst science is an engine for technology and production, it is also a source of cultural change. Its role in modifying natural processes (ecology), life itself (biology) and the functioning of society (the social sciences) gives it a unique role in the "learning society", in the sense that such a society is very dependent on a rational public debate about the implications of new knowledge. This brings us to one of the most important and most difficult questions concerning the role of higher education, namely the "critical" role in relation to society. In the words of the Rectors, Presidents and Vice-Chancellors of European universities: "The direct usefulness of universities for their community is not limited to their economic function; they are also, or primarily, cultural centres or "think tanks" offering a forum for learning, research and social debate".

If so, there are some fundamental implications for the way in which basic and continuing higher education should be related in the modern university:

- first, basic university education should be strengthened as a means of producing the educated generalists that society now needs to cope with the systemic impacts of science and technology;

- second, continuing higher education needs to be integrated rather than segregated, so as to stimulate interaction between the established and the rising generation of professionals;

- third, the curriculum for both generations needs to bridge the gap between the "two cultures", humanistic and technological, reflecting the reality that there is now a complex interaction between changing technological and production paradigms (information and communication technologies, bio- and genetic engineering, new materials), the stock and structure of qualifications (human capital), and the scientific knowledge base. The debate on the "Information Society" in the G7 framework is typical of this;

- fourth, the appearance of "human" obsolescence alongside "machine" obsolescence is a fundamental challenge to the universities which affects both individual and continuing higher education.

D. NEW WAYS AND MEANS FOR LIFELONG LEARNING

The goals and architecture for lifelong learning which have been discussed above lead to an important conclusion. All the existing structures, basic schooling, post-compulsory education and training, further education and training for adults, and higher education, must henceforth take into consideration the concept of lifelong learning. The correct approach in doing so is to bring to bear the new ways and means which will enable the institutions concerned to change what they have to offer and individuals to have wider and more flexible choices.

New education and training methodologies and networks

It has to be admitted that there may be a conflict between existing education/qualification systems based on a rigid separation between generations and the education-work-retirement life sequence compared with the more flexible, inter-generational and market-oriented framework advocated here. Yet many of the developments already embedded in the existing system, and which the European Community has to some extent aided and abetted, provide a bridge between the two.

1 *Training information systems:*
If individuals are to be able to fit the available training opportunities to their personal needs, there needs to be a major development in training information systems, both in the Member States and at the European level. The foundation stone of efficient markets is information about supply alternatives and their price, but a good start would be made if individuals and institutions on the demand side had access to information on what is available.

2 *Inter-institutional networks:*
The problem is not so much to create new education and training structures as to help existing agencies to co-operate so as to respond faster and more flexibly to the needs of individuals. There are plenty of examples, both national and trans-European, of this process in the *Leonardo da Vinci* and *Socrates* programmes, as in their predecessors including the former *COMETT, ERASMUS* and *PETRA* programmes.

3. *Individual achievement profiles*:
The skills and competence capital which individuals accumulate during their life-time is sometimes lost because qualifications are only recognized in distinct blocks, often by examination or professional certification. Individual achievement profiles are now being developed in many Member States so as to facilitate a more individualised, flexible approach to individual skill achievement.

4. *Modular course construction*:
It may still be necessary to train professional elites in three to four year courses in single institutions, but this is entirely inappropriate for the life-cycle needs outlined above. The flexible, life-time accumulation of human capital needed by the majority of the population requires a modular approach to course construction.

5. *Distance learning*:
All of the above features can be applied in distance learning, to which the Community has devoted considerable attention. Distance learning systems are simply the extreme case of flexible, modular, networking education and training, addressed to the individual consumer and taking advantage of modern information and communications technologies. The absolute distinction between "institutional" and "distance" learning is in fact likely to weaken.

More flexible systems of qualifications

A life-time based on a first qualification may become the exception rather than the norm - and yet in our fathers' time initial qualifications were not only the means to a livelihood but also the basis of the social structure.

What every individual needs today is an entry qualification to get a foothold in the world of work, followed by flexible opportunities for human capital accumulation - a "portfolio of competencies" rather than a once-for-all passport to a career. Such an approach corresponds better to the needs of the economy, because of the rapid structural and technological change are accelerating the pace of skill obsolescence. This changes the economic logic of training both for individuals and enterprises.

But such an approach cannot work unless employers are much more explicit about the competencies they need. Otherwise, selection into the labour market hinges on paper qualifications based on ever-lengthening initial periods of education and training. Much more responsive interfaces are needed between the users and suppliers of education and training.

The heart of the matter is that education and training in Europe has largely been supply-dominated. Interrelated changes in skills and work organisation, largely the result of technological change and global economic competition, are now so fast and complex that a supply-dominated system cannot compete. There are many implications of this change for the European Union, but the central one is that, as a flanking policy for the Single Market, dynamic systems for developing the skills and qualifications of the European labour force are needed.

The main elements to which attention needs to be given appear to be the following.

i) Qualifications systems should be developed as close to the workplace as possible, since the emerging production and management systems are the major positive driving force. This implies a

major role for the social partners, and active co-operation with education and training institutions at local and regional levels.

ii) The approach should favour progressive, modular accumulation of qualifications, depending on the nature of the skills involved.

iii) The acceptance of work experience in certification procedures by training institutions is indispensable.

iv) Growing weight should be given to the competencies on which skills and qualifications are built, since these competencies can be transferred to new jobs and professions.

v) Such new approaches need to be built into new ground rules for whose development public authorities, organised employers and trade unions should share responsibility.

CONCLUSION

Building a learning society is now one of the great challenges facing Europe, at least equal in importance to the construction of an integrated economy. This involves mobilising not only the public education and training systems, but all sectors of society including the enterprise sector and individuals. The share of education and training in public budgets is already so high that it cannot be greatly increased. The future, as in other areas of public concern such as health, transport or the environment, lies in creating a new relationship between public policy and private action.

The learning society will not come about overnight. Even if all the desirable adjustments are made on the supply side, the success of the learning process ultimately depends on the motivation of the learner.

It is not easy to break the mutually reinforcing cycle of poor employment prospects and poor educational attainment by individuals, or that of low profitability and inadequate investment in human capital by firms. The very cohesion of European society is threatened by the widening gap between those who base their life chances on education, knowledge and skills and those who fall by the wayside. Democracy and the legitimacy of government itself is weakened if citizens are not in a position to vote in a reasoned manner on increasingly complex issues. Improvements to the supply side of the education and training system therefore need to be matched by a corresponding effort to bring home to individual citizens the benefits and the opportunities afforded by lifelong learning.

The wide range of events taking place under the auspices of the European Year are helping to publicise countless individual cases which serve as a positive example encouraging others to take up learning opportunities on a continuing basis, whether with a view to improving their employment situation or because they seek a greater personal fulfilment. The European Year provides an opportunity both to raise awareness of new learning needs and opportunities, and to reflect, at local, regional, national and European level on how to meet new needs. The White Paper *Teaching and Learning - towards the Learning Society* likewise does not purport to answer all the questions comprehensively. But it puts forward concrete suggestions, the discussion of which will not only advance the institutional debate on making lifelong learning a reality, but will also bring it to a wider public.

European Commission

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